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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

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FILE 'CAPLUS' ENTERED AT 11:09:39 ON 19 JAN 2007
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FILE 'CA' ENTERED AT 11:09:39 ON 19 JAN 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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=> Retinoid acid
L1         406 RETINOID ACID

=> selenium or selenium salt
L2      176498 SELENIUM OR SELENIUM SALT

=> L1 and L2
L3           4 L1 AND L2

=> D L3 IBIB ABS 1-4

L3   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2005:1331259  CAPLUS
DOCUMENT NUMBER:          144:64327
TITLE:                    Use of selenium or a selenium
                          salt and a retinoid acid
                          or a retinoid in the treatment of viral hepatitis C
INVENTOR(S):              Herget, Thomas; Klebl, Bert
PATENT ASSIGNEE(S):       GPC Biotech A.-G., Germany
SOURCE:                   PCT Int. Appl., 58 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
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     WO 2005120479         A1    20051222    WO 2005-EP6226          20050609
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
             NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
             SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
             ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:                       US 2004-578161P     P  20040609
AB   The present invention relates to combination therapies comprising at least
     one retinoid or retinoid agonist together with selenium or a
     selenium salt particularly useful in conjunction with
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conventional antiviral therapeutics which are synergistically effective against Hepatitis C virus (HCV) infections. In particular, the present invention relates to the synergism between compds. capable of activating or upregulating the gastrointestinal form of glutathione peroxidase for prophylaxis and/or treatment of HCV infections, administered in combination therapies with interferons. The combinations disclosed have proven surprisingly effective even in patients unresponsive to interferon/ribavirin therapies.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1210008 CAPLUS
DOCUMENT NUMBER: 144:16623
TITLE: The effect of all-trans retinoic acid and sodium selenite (Na2SeO3) on VEGF and its receptor expression in HL-60 cells
AUTHOR(S): Ye, Jin; Liu, Fu-qiang; Wu, Yi-ping
CORPORATE SOURCE: Department of Hematology, Beijing Tongren Hospital, Capital University of Medical Science, Beijing, 100730, Peop. Rep. China
SOURCE: Zhongguo Shiyan Xueyexue Zazhi (2004), 12(2), 142-146
CODEN: ZSXZAF; ISSN: 1009-2137
PUBLISHER: Zhongguo Shiyan Xueyexue Zazhishe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB In order to investigate the effect of non-medullar toxicity drug - all trans retinoid acid (ATRA) and cancer preventive trace element-selenium compound - sodium selenite (Na2Se3) on the expression of vascular endothelial growth factor (VEGF) and its receptor in HL-60 cells, the expression of VEGF and its receptor in HL-60 cells were detected by ELISA technique and flow cytometry before and after treatment with two drugs. The results showed that the mean VEGF concns. in the cultural supernatant of 5 and 10 μmol/L ATRA-treated HL-60 cells for 48 and 72 h were lower than those of the control group without adding ATRA. The differences between the ATRA-treated groups and the control group were statistically significant ($P = 0.001$, $P = 0.000$, $P < 0.01$, resp.). The levels of VEGF-R on the surface of HL-60 cells also decreased after treatment with ATRA of 5 and 10 μmol/L for 72 h, but at 48 h the expression rates of VEGF-R on HL-60 cells of the two ATRA treated groups were not significantly decreased. At 48 and 72 h, Na1SeO3 of 5 and 10 μmol/L had no obvious effect on HL-60 secreting VEGF, but notablely inhibited the expression of VEGF-R. In conclusion, ATRA could inhibit the expression of VEGF and its receptor in HL-60 cell. Na2SeO3 could not inhibit the expression of VEGF in HL-60 cell, but could decrease the receptor expression of VEGF, which mechanism should be further studied. ATRA and Na2SeO3 had not obvious medullar- inhibition, but anti-angiogenesis activity. It is suggested that combination of two drugs with conventional therapy may enhance the effect of radiotherapy and chemotherapy, and reduce the dose and thus toxicity of chemotherapeutic agents.

L3 ANSWER 3 OF 4 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 144:64327 CA
TITLE: Use of selenium or a selenium salt and a retinoid acid or a retinoid in the treatment of viral hepatitis C
INVENTOR(S): Herget, Thomas; Klebl, Bert
PATENT ASSIGNEE(S): GPC Biotech A.-G., Germany
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005120479	A1	20051222	WO 2005-EP6226	20050609

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-578161P P 20040609

AB The present invention relates to combination therapies comprising at least one retinoid or retinoid agonist together with selenium or a selenium salt particularly useful in conjunction with conventional antiviral therapeutics which are synergistically effective against Hepatitis C virus (HCV) infections. In particular, the present invention relates to the synergism between compds. capable of activating or upregulating the gastrointestinal form of glutathione peroxidase for prophylaxis and/or treatment of HCV infections, administered in combination therapies with interferons. The combinations disclosed have proven surprisingly effective even in patients unresponsive to interferon/ribavirin therapies.

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L3 ANSWER 4 OF 4 CA COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 144:16623 CA

TITLE: The effect of all-trans retinoic acid and sodium selenite (Na2SeO3) on VEGF and its receptor expression in HL-60 cells

AUTHOR(S): Ye, Jin; Liu, Fu-qiang; Wu, Yi-ping

CORPORATE SOURCE: Department of Hematology, Beijing Tongren Hospital, Capital University of Medical Science, Beijing, 100730, Peop. Rep. China

SOURCE: Zhongguo Shiyan Xueyexue Zazhi (2004), 12(2), 142-146
CODEN: ZSXZAF; ISSN: 1009-2137

PUBLISHER: Zhongguo Shiyan Xueyexue Zazhishe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB In order to investigate the effect of non-medullar toxicity drug - all trans retinoid acid (ATRA) and cancer preventive trace element-selenium compound - sodium selenite (Na2Se3) on the expression of vascular endothelial growth factor (VEGF) and its receptor in HL-60 cells, the expression of VEGF and its receptor in HL-60 cells were detected by ELISA technique and flow cytometry before and after treatment with two drugs. The results showed that the mean VEGF concns. in the cultural supernatant of 5 and 10 μmol/L ATRA-treated HL-60 cells for 48 and 72 h were lower than those of the control group without adding ATRA. The differences between the ATRA-treated groups and the control group were statistically significant ($P = 0.001$, $P = 0.000$, $P < 0.01$, resp.). The levels of VEGF-R on the surface of HL-60 cells also decreased after treatment with ATRA of 5 and 10 μmol/L for 72 h, but at 48 h the expression rates of VEGF-R on HL-60 cells of the two ATRA treated groups were not significantly decreased. At 48 and 72 h, Na1SeO3 of 5 and 10 μmol/L had no obvious effect on HL-60 secreting VEGF, but notablely inhibited the expression of VEGF-R. In conclusion, ATRA could inhibit the expression of VEGF and its receptor in HL-60 cell. Na2SeO3 could not

inhibit the expression of VEGF in HL-60 cell, but could decrease the receptor expression of VEGF, which mechanism should be further studied. ATRA and Na2SeO3 had not obvious medullar- inhibition, but anti-angiogenesis activity. It is suggested that combination of two drugs with conventional therapy may enhance the effect of radiotherapy and chemotherapy, and reduce the dose and thus toxicity of chemotherapeutic agents.

=> HCV and l1
L4 2 HCV AND L1

=> HCV and L2
L5 30 HCV AND L2

=> D L4 IBIB ABS 1-2

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1331259 CAPLUS
DOCUMENT NUMBER: 144:64327
TITLE: Use of selenium or a selenium salt and a retinoid acid or a retinoid in the treatment of viral hepatitis C
INVENTOR(S): Herget, Thomas; Klebl, Bert
PATENT ASSIGNEE(S): GPC Biotech A.-G., Germany
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005120479	A1	20051222	WO 2005-EP6226	20050609

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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-578161P P 20040609
AB The present invention relates to combination therapies comprising at least one retinoid or retinoid agonist together with selenium or a selenium salt particularly useful in conjunction with conventional antiviral therapeutics which are synergistically effective against Hepatitis C virus (HCV) infections. In particular, the present invention relates to the synergism between compds. capable of activating or upregulating the gastrointestinal form of glutathione peroxidase for prophylaxis and/or treatment of HCV infections, administered in combination therapies with interferons. The combinations disclosed have proven surprisingly effective even in patients unresponsive to interferon/ribavirin therapies.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 144:64327 CA

TITLE: Use of selenium or a selenium salt and a retinoid acid or a retinoid in the treatment of viral hepatitis C
INVENTOR(S): Herget, Thomas; Klebl, Bert
PATENT ASSIGNEE(S): GPC Biotech A.-G., Germany
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005120479	A1	20051222	WO 2005-EP6226	20050609

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-578161P P 20040609

AB The present invention relates to combination therapies comprising at least one retinoid or retinoid agonist together with selenium or a selenium salt particularly useful in conjunction with conventional antiviral therapeutics which are synergistically effective against Hepatitis C virus (HCV) infections. In particular, the present invention relates to the synergism between compds. capable of activating or upregulating the gastrointestinal form of glutathione peroxidase for prophylaxis and/or treatment of HCV infections, administered in combination therapies with interferons. The combinations disclosed have proven surprisingly effective even in patients unresponsive to interferon/ribavirin therapies.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> "6-[3-(1-adamantyl)-4-hydroxyphenyl]-2-naphthalene carboxylic acid"
L6 86 "6-[3-(1-ADAMANTYL)-4-HYDROXYPHENYL]-2-NAPHTHALENE CARBOXYLIC ACID"

=> retinoid and L6
L7 86 RETINOID AND L6

=> HCV and L7
L8 2 HCV AND L7

=> D L8 IBIB ABS 1-2

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:490732 CAPLUS
DOCUMENT NUMBER: 141:42933
TITLE: Formulations useful against hepatitis C virus infections
INVENTOR(S): Herget, Thomas; Klebl, Bert
PATENT ASSIGNEE(S): Axxima Pharmaceuticals A.-G., Germany
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004050101	A2	20040617	WO 2003-EP13514	20031201
WO 2004050101	A3	20040910		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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DE 10305138	A1	20040826	DE 2003-10305138	20030207
CA 2509955	A1	20040617	CA 2003-2509955	20031201
AU 2003294757	A1	20040623	AU 2003-294757	20031201
EP 1567172	A2	20050831	EP 2003-785699	20031201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006514094	T	20060427	JP 2004-570683	20031201
US 2006151574	A1	20060713	US 2005-536950	20051116

PRIORITY APPLN. INFO.:

DE 2002-10255861	A	20021129
US 2002-430367P	P	20021203
DE 2003-10305138	A	20030207
US 2003-446246P	P	20030211
WO 2003-EP13514	W	20031201

AB The present invention relates generally to chemical compds. and substances which are effective against Hepatitis C virus (HCV) infections. Moreover, the present invention relates to compns. comprising said compds. and/or substances, to methods for preventing HCV infections as well use of the compds. and/or substances for the preparation of compns. useful for the prophylaxis and/or treatment of HCV infections. Useful compds. and substances according to the invention are selenium, selenium salts, Vitamin D3 and retinoids, like all trans retinoic acid and salts thereof, C1-C10 alkyl amide of all trans retinoic acid and salts thereof, C1-C10 alkyl esters of all trans retinoic acid and salts thereof, 9-cis retinoic acid and salts thereof, C1-C10 alkyl amide of 9-cis retinoic acid and salts thereof, C1-C10 alkyl esters of 9-cis retinoic acid and salts thereof, (E)-4-[2-(5,6,7,8-tetrahydro-5,5,8,8-tetra methyl-2-naphthalenyl-1)-propenyl] benzoic acid (TTNPB), (4-[5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl] carboxamido) benzoic acid (AM-580), N-(4-hydroxyphenyl) retinamide (4-HPR), and 6-[3-(1-adamantyl)-4-hydroxyphenyl]-2-naphthalene carboxylic acid (AHPN).

L8 ANSWER 2 OF 2 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 141:42933 CA
TITLE: Formulations useful against hepatitis C virus infections
INVENTOR(S): Herget, Thomas; Klebl, Bert
PATENT ASSIGNEE(S): Axxima Pharmaceuticals A.-G., Germany
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
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PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004050101	A2	20040617	WO 2003-EP13514	20031201
WO 2004050101	A3	20040910		
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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10255861	A1	20040617	DE 2002-10255861	20021129
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CA 2509955	A1	20040617	CA 2003-2509955	20031201
AU 2003294757	A1	20040623	AU 2003-294757	20031201
EP 1567172	A2	20050831	EP 2003-785699	20031201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006514094	T	20060427	JP 2004-570683	20031201
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	US 2002-430367P	P	20021203
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	WO 2003-EP13514	W	20031201

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```
=> "gastrointestinal glutathione peroxidase"
L9          65 "GASTROINTESTINAL GLUTATHIONE PEROXIDASE"

=> L9 and L8
L10          0 L9 AND L8

=> L9 and selenium
L11         48 L9 AND SELENIUM

=> "glutathion peroxidase"
L12        154 "GLUTATHION PEROXIDASE"

=> L12 and L8
```

```
L13           0 L12 AND L8

=> selenium adj salt
L14           0 SELENIUM ADJ SALT

=> selenium (w) salt
L15         413 SELENIUM (W) SALT

=> L15 and L8
L16           2 L15 AND L8

=> L15 and L9
L17           2 L15 AND L9

=> L15 and HCV
L18           6 L15 AND HCV

=> D L18 IBIBI ABS 1-6
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L18  ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2005:1331259  CAPLUS
DOCUMENT NUMBER:          144:64327
TITLE:                    Use of selenium or a selenium salt
                          and a retinoid acid or a retinoid in the treatment of
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INVENTOR(S):              Herget, Thomas; Klebl, Bert
PATENT ASSIGNEE(S):       GPC Biotech A.-G., Germany
SOURCE:                   PCT Int. Appl., 58 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
             NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
             SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
             ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:                       US 2004-578161P     P  20040609
REFERENCE COUNT:          8      THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18  ANSWER 2 OF 6  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2004:633154  CAPLUS
DOCUMENT NUMBER:          141:167729
TITLE:                    Gastrointestinal glutathione peroxidase as therapeutic
                          target for treatment of HCV infection,
```

methods of treating HCV infection, and compounds useful therefor

INVENTOR(S): Herget, Thomas; Cotten, Matthew; Obert, Sabine; Klebl, Bert

PATENT ASSIGNEE(S): Germany

SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S. Pat. Appl. 2003 180,719.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004152073	A1	20040805	US 2003-723719	20031126
WO 2002084294	A2	20021024	WO 2002-EP4167	20020415
WO 2002084294	A3	20031030		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10255861	A1	20040617	DE 2002-10255861	20021129
US 2003180719	A1	20030925	US 2003-342054	20030114

PRIORITY APPLN. INFO.:		
US 2001-283345P	P	20010413
WO 2002-EP4167	A2	20020415
DE 2002-10255861	A	20021129
US 2002-430367P	P	20021203
US 2003-342054	A2	20030114

L18 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:490732 CAPLUS

DOCUMENT NUMBER: 141:42933

TITLE: Formulations useful against hepatitis C virus infections

INVENTOR(S): Herget, Thomas; Klebl, Bert

PATENT ASSIGNEE(S): Axxima Pharmaceuticals A.-G., Germany

SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004050101	A2	20040617	WO 2003-EP13514	20031201
WO 2004050101	A3	20040910		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

DE 10255861	A1	20040617	DE 2002-10255861		20021129
DE 10305138	A1	20040826	DE 2003-10305138		20030207
CA 2509955	A1	20040617	CA 2003-2509955		20031201
AU 2003294757	A1	20040623	AU 2003-294757		20031201
EP 1567172	A2	20050831	EP 2003-785699		20031201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
JP 2006514094	T	20060427	JP 2004-570683		20031201
US 2006151574	A1	20060713	US 2005-536950		20051116
PRIORITY APPLN. INFO.:			DE 2002-10255861	A	20021129
			US 2002-430367P	P	20021203
			DE 2003-10305138	A	20030207
			US 2003-446246P	P	20030211
			WO 2003-EP13514	W	20031201

L18 ANSWER 4 OF 6 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 144:64327 CA
TITLE: Use of selenium or a selenium salt and a retinoid acid or a retinoid in the treatment of viral hepatitis C
INVENTOR(S): Herget, Thomas; Klebl, Bert
PATENT ASSIGNEE(S): GPC Biotech A.-G., Germany
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005120479	A1	20051222	WO 2005-EP6226	20050609
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 2004-578161P	P 20040609

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 5 OF 6 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 141:167729 CA
TITLE: Gastrointestinal glutathione peroxidase as therapeutic target for treatment of HCV infection, methods of treating HCV infection, and compounds useful therefor
INVENTOR(S): Herget, Thomas; Cotten, Matthew; Obert, Sabine; Klebl, Bert
PATENT ASSIGNEE(S): Germany
SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S. Pat. Appl. 2003 180,719.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004152073	A1	20040805	US 2003-723719	20031126
WO 2002084294	A2	20021024	WO 2002-EP4167	20020415
WO 2002084294	A3	20031030		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10255861	A1	20040617	DE 2002-10255861		20021129
US 2003180719	A1	20030925	US 2003-342054		20030114
PRIORITY APPLN. INFO.:			US 2001-283345P	P	20010413
			WO 2002-EP4167	A2	20020415
			DE 2002-10255861	A	20021129
			US 2002-430367P	P	20021203
			US 2003-342054	A2	20030114

L18 ANSWER 6 OF 6 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 141:42933 CA
TITLE: Formulations useful against hepatitis C virus infections
INVENTOR(S): Herget, Thomas; Klebl, Bert
PATENT ASSIGNEE(S): Axxima Pharmaceuticals A.-G., Germany
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004050101	A2	20040617	WO 2003-EP13514	20031201
WO 2004050101	A3	20040910		

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DE 10255861	A1	20040617	DE 2002-10255861		20021129
DE 10305138	A1	20040826	DE 2003-10305138		20030207
CA 2509955	A1	20040617	CA 2003-2509955		20031201
AU 2003294757	A1	20040623	AU 2003-294757		20031201
EP 1567172	A2	20050831	EP 2003-785699		20031201

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

JP 2006514094	T	20060427	JP 2004-570683		20031201
US 2006151574	A1	20060713	US 2005-536950		20051116
PRIORITY APPLN. INFO.:			DE 2002-10255861	A	20021129
			US 2002-430367P	P	20021203
			DE 2003-10305138	A	20030207
			US 2003-446246P	P	20030211

=> D L16 IBIB ABS 1-2

L16 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:490732 CAPLUS
DOCUMENT NUMBER: 141:42933
TITLE: Formulations useful against hepatitis C virus infections
INVENTOR(S): Herget, Thomas; Klebl, Bert
PATENT ASSIGNEE(S): Axxima Pharmaceuticals A.-G., Germany
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004050101	A2	20040617	WO 2003-EP13514	20031201
WO 2004050101	A3	20040910		
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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10255861	A1	20040617	DE 2002-10255861	20021129
DE 10305138	A1	20040826	DE 2003-10305138	20030207
CA 2509955	A1	20040617	CA 2003-2509955	20031201
AU 2003294757	A1	20040623	AU 2003-294757	20031201
EP 1567172	A2	20050831	EP 2003-785699	20031201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006514094	T	20060427	JP 2004-570683	20031201
US 2006151574	A1	20060713	US 2005-536950	20051116

PRIORITY APPLN. INFO.:

DE 2002-10255861	A	20021129
US 2002-430367P	P	20021203
DE 2003-10305138	A	20030207
US 2003-446246P	P	20030211
WO 2003-EP13514	W	20031201

AB The present invention relates generally to chemical compds. and substances which are effective against Hepatitis C virus (HCV) infections. Moreover, the present invention relates to compns. comprising said compds. and/or substances, to methods for preventing HCV infections as well use of the compds. and/or substances for the preparation of compns. useful for the prophylaxis and/or treatment of HCV infections. Useful compds. and substances according to the invention are selenium, selenium salts, Vitamin D3 and retinoids, like all trans retinoic acid and salts thereof, C1-C10 alkyl amide of all trans retinoic acid and salts thereof, C1-C10 alkyl esters of all trans retinoic acid and salts thereof, 9-cis retinoic acid and salts thereof, C1-C10 alkyl amide of 9-cis retinoic acid and salts thereof, C1-C10 alkyl esters of 9-cis retinoic acid and salts thereof, (E)-4-[2-(5,6,7,8-tetrahydro-5,5,8,8-tetra methyl-2-naphthalenyl-1)-propenyl] benzoic acid (TTNPB), (4-[5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl] carboxamido) benzoic acid (AM-580), N-(4-hydroxyphenyl) retinamide (4-HPR), and 6-[3-(1-adamantyl)-4-

hydroxyphenyl]-2-naphthalene
carboxylic acid (AHPN).

L16 ANSWER 2 OF 2 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 141:42933 CA
TITLE: Formulations useful against hepatitis C virus infections
INVENTOR(S): Herget, Thomas; Klebl, Bert
PATENT ASSIGNEE(S): Axxima Pharmaceuticals A.-G., Germany
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004050101	A2	20040617	WO 2003-EP13514	20031201
WO 2004050101	A3	20040910		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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DE 10255861	A1	20040617	DE 2002-10255861	20021129
DE 10305138	A1	20040826	DE 2003-10305138	20030207
CA 2509955	A1	20040617	CA 2003-2509955	20031201
AU 2003294757	A1	20040623	AU 2003-294757	20031201
EP 1567172	A2	20050831	EP 2003-785699	20031201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006514094	T	20060427	JP 2004-570683	20031201
US 2006151574	A1	20060713	US 2005-536950	20051116

PRIORITY APPLN. INFO.:

DE 2002-10255861	A	20021129
US 2002-430367P	P	20021203
DE 2003-10305138	A	20030207
US 2003-446246P	P	20030211
WO 2003-EP13514	W	20031201

AB The present invention relates generally to chemical compds. and substances which are effective against Hepatitis C virus (HCV) infections. Moreover, the present invention relates to compns. comprising said compds. and/or substances, to methods for preventing HCV infections as well use of the compds. and/or substances for the preparation of compns. useful for the prophylaxis and/or treatment of HCV infections. Useful compds. and substances according to the invention are selenium, selenium salts, Vitamin D3 and retinoids, like all trans retinoic acid and salts thereof, C1-C10 alkyl amide of all trans retinoic acid and salts thereof, C1-C10 alkyl esters of all trans retinoic acid and salts thereof, 9-cis retinoic acid and salts thereof, C1-C10 alkyl amide of 9-cis retinoic acid and salts thereof, C1-C10 alkyl esters of 9-cis retinoic acid and salts thereof, (E)-4-[2-(5,6,7,8-tetrahydro-5,5,8,8-tetra methyl-2-naphthalenyl-1)-propenyl] benzoic acid (TTNPB), (4-[5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl] carboxamido) benzoic acid (AM-580), N-(4-hydroxyphenyl) retinamide (4-HPR), and 6-[3-(1-adamantyl)-4-hydroxyphenyl]-2-naphthalene carboxylic acid (AHPN).

=> D L17 IBIB ABS 1-2

L17 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:633154 CAPLUS
DOCUMENT NUMBER: 141:167729
TITLE: Gastrointestinal glutathione peroxidase as therapeutic target for treatment of HCV infection, methods of treating HCV infection, and compounds useful therefor
INVENTOR(S): Herget, Thomas; Cotten, Matthew; Obert, Sabine; Klebl, Bert
PATENT ASSIGNEE(S): Germany
SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S. Pat. Appl. 2003 180,719.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004152073	A1	20040805	US 2003-723719	20031126
WO 2002084294	A2	20021024	WO 2002-EP4167	20020415
WO 2002084294	A3	20031030		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10255861	A1	20040617	DE 2002-10255861	20021129
US 2003180719	A1	20030925	US 2003-342054	20030114

PRIORITY APPLN. INFO.:		
US 2001-283345P	P	20010413
WO 2002-EP4167	A2	20020415
DE 2002-10255861	A	20021129
US 2002-430367P	P	20021203
US 2003-342054	A2	20030114

AB The present invention relates to the human cellular protein glutathione peroxidase-gastrointestinal as a target for medical intervention against Hepatitis C virus (HCV) infections. Furthermore, the present invention relates to a method for the detection of compds. useful for prophylaxis and/or treatment of hepatitis C virus infections and a method for detecting hepatitis C virus infections in an individual or in cells. Also compns., compds., nucleic acid mols. (such as aptamers), mono- or polyclonal antibodies are disclosed which are effective for the treatment of HCV infections, and methods for prophylaxis and/or treatment of hepatitis C virus infections or for the regulation of hepatitis C virus production are disclosed. The inventors designed a randomized, single-blinded clin. study to test the safety, tolerability, and efficacy of all-trans retinoic acid alone or in combination with pegylated α interferon in patients with chronic hepatitis C. The therapy regimens include: Vesanoid (orally administered all-trans retinoic acid compound, Hoffman-La Roche); Pegasys (slow-release pegylated interferon α2a, Hoffman-La Roche); and selen 30 ALLACT (supplement containing selenium and ALLACT composed of garlic powder and Lactobacillus bulgaricus).

L17 ANSWER 2 OF 2 CA COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 141:167729 CA

TITLE: Gastrointestinal glutathione peroxidase as therapeutic target for treatment of HCV infection, methods of treating HCV infection, and compounds useful therefor

INVENTOR(S): Herget, Thomas; Cotten, Matthew; Obert, Sabine; Klebl, Bert

PATENT ASSIGNEE(S): Germany

SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S. Pat. Appl. 2003 180,719.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004152073	A1	20040805	US 2003-723719	20031126
WO 2002084294	A2	20021024	WO 2002-EP4167	20020415
WO 2002084294	A3	20031030		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10255861	A1	20040617	DE 2002-10255861	20021129
US 2003180719	A1	20030925	US 2003-342054	20030114

PRIORITY APPLN. INFO.:

US 2001-283345P	P	20010413
WO 2002-EP4167	A2	20020415
DE 2002-10255861	A	20021129
US 2002-430367P	P	20021203
US 2003-342054	A2	20030114

AB The present invention relates to the human cellular protein glutathione peroxidase-gastrointestinal as a target for medical intervention against Hepatitis C virus (HCV) infections. Furthermore, the present invention relates to a method for the detection of compds. useful for prophylaxis and/or treatment of hepatitis C virus infections and a method for detecting hepatitis C virus infections in an individual or in cells. Also compns., compds., nucleic acid mols. (such as aptamers), mono- or polyclonal antibodies are disclosed which are effective for the treatment of HCV infections, and methods for prophylaxis and/or treatment of hepatitis C virus infections or for the regulation of hepatitis C virus production are disclosed. The inventors designed a randomized, single-blinded clin. study to test the safety, tolerability, and efficacy of all-trans retinoic acid alone or in combination with pegylated α interferon in patients with chronic hepatitis C. The therapy regimens include: Vesanoid (orally administered all-trans retinoic acid compound, Hoffman-La Roche); Pegasys (slow-release pegylated interferon α2a, Hoffman-La Roche); and selen 30 ALLACT (supplement containing selenium and ALLACT composed of garlic powder and Lactobacillus bulgaricus).

L18 ANSWER 3 OF 6 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:344067 BIOSIS
DOCUMENT NUMBER: PREV200600343199
TITLE: Hepatitis C (HCV) and antioxidant deficiency in HIV plus drug users in Miami.
AUTHOR(S): Baum, Marianna K. [Reprint Author]; Duan, Rui; Sales, Sabrina; Rafie, Carlin; Carroll, Linda Ann; Campa, Adriana
CORPORATE SOURCE: Florida Int Univ, Miami, FL 33199 USA
SOURCE: FASEB Journal, (MAR 6 2006) Vol. 20, No. 4, Part 1, pp. A145.
Meeting Info.: Experimental Biology 2006 Meeting. San Francisco, CA, USA. April 01 -05, 2006. Amer Assoc Anatomists; Amer Physiol Soc; Amer Soc Biochem & Mol Biol; Amer Soc Investigat Pathol; Amer Soc Nutr; Amer Soc Pharmacol & Expt Therapeut.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Jul 2006
Last Updated on STN: 12 Jul 2006

AB Objective: Increased oxidative stress is common in HIV and HCV infections, complicated by secondary malnutrition which may heighten oxidative stress. We examined antioxidant status in HIV/HCV coinfection in HIV+ drug users.Method: After consenting 207 HIV+ drug users,demographic, nutritional, medical and treatment questionnaires and anthropometries were completed. Blood was drawn for CD4 cell counts, HIV viral load,serum chemistry and plasma zinc and selenium.Results: Of the 207 participants, 37.2% were HCV coinfected,72.5 % were males; mean age was 42. In the co-infected group, as compared to HIV+, mean plasma zinc (0.61 +/- 0.13 vs. 0.67 +/- 0.15 mg/L), and median serum albumin [4.0 (0.4-5.1) vs. 3.9 (2.7-4.8) g/dL, p=0.04)] were significantly lower, while mean values of liver enzymes (AST: 55.3 +/- 42 vs. 35 30 IU/L, p < 0.001; ALT: 50.2 +/- 50 vs. 33 44 IU/L, p=0.003; LDH: 209 53 vs. 197 44 IU/L, p=0.02) were higher, after adjusting for age, gender, CD4 count, viral load and HAART. Lower % of participants with plasma selenium > 100 mg/dL, (85.7 vs. 94.4, p=0.056), and lower intake of vitamin E (1.5 +/- 2.4 vs. 2.3 +/- 2.8 mg, p=0.05) and thiamin (1.5 +/- 1.3 vs. 1.8 +/- 1.2 mg, p=0.04) was observed in the coinfected group. No significant differences were found in BMI, calories, macronutrients and beta-carotene between the 2 groups.Conclusion: HIV/HCV co-infected persons are in a poorer antioxidant status than those who are HIV+, as suggested by lower plasma zinc and selenium, and lower intake of vitamin E and thiamin. Coinfection is strongly associated with liver dysfunction as shown by lower albumin and higher ALT, AST and LDH. Studies on association of antioxidants and HIV/HCV co-infection are neede

L22 ANSWER 2 OF 2 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:210744 BIOSIS
DOCUMENT NUMBER: PREV200600212473
TITLE: Retinoic acid causes up-regulation of the gastrointestinal glutathione peroxidase (GI-GPx) promoter and concomitantly down-regulation of hepatitis C virus (HCV) subgenomic RNA.
AUTHOR(S): Herget, T.; Morbitzer, M.; Klebl, B.; Galle, Peter; Becher, Wulf; Wallasch, Christian
SOURCE: Gastroenterology, (APR 2005) Vol. 128, No. 4, Suppl. 2, pp. A699.
Meeting Info.: Annual Meeting of the American-Gastroenterological-Association/Digestive-Disease-Week. Chicago, IL, USA. May 14 -19, 2005. Amer Gastroenterol Assoc.
CODEN: GASTAB. ISSN: 0016-5085.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 29 Mar 2006
Last Updated on STN: 29 Mar 2006

AB The mRNA expression patterns of three Hepatitis C Virus (HCV)-subgenomic RNA replicon cell lines were compared with those of mock transfected or untransfected HuH7 cells utilizing cDNA array filters. The gastrointestinal-glutathione peroxidase (GI-GPx) mRNA was drastically down-regulated (as low as 5 to 10% of controls) in all replicon cell lines, while the expression level of the classical cellular-glutathione peroxidase (cGPx) remained unaffected. These data were confirmed by Northern blot and Western blot analyses. GI-GPx is a selenoprotein belonging to a family of four members, responsible for the detoxification of peroxides.Measuring total cellular glutathione peroxidase activity, revealed that the replicon cells showed reduced glutathione peroxidase activity (approx. 50% of control cells). Accordingly, replicon cells demonstrated increased susceptibility towards paraquat, a compound producing oxidative stress, reflected by a reduced viability of the replicon cultures compared to mock-transfected cell lines.When replicon cells were incubated with interferon for four days to induce the innate immune response, the HCV-replicon became down-regulated. Concomitantly, expression of CI-GPx resumed to nearly normal levels. Interferon itself did not effect the expression of GI-GPx in mock transfected and naive HuH7 cells.Furthermore, transient over-expression of the GI-GPx cDNA via adenoviral gene transfer induced a substantial and consistent down-regulation of the HCV RNA and the NS5a protein in replicon cells. In depth inspection of the 5' promoter region of the GI-GPx gene revealed the presence of two retinoic acid response elements (RARE). Treating replicon cultures with retinoic acid in the presence of selenite lead to increased expression of endogenous GI-GPx, followed by a dramatic down-regulation of the replicon. This decrease was even more pronounced, when cells were incubated with retinoic acid in the presence of selenite and interferon alpha.Taken together, these data show, that (a) expression of GI-GPx and replication of HCV exclude each other and (b) retinoic acid might be a valuable tool for the treatment Of HCV patients. Therefore, a clinical pilot trial at the University of Mainz with 9 population of interferon non-responders was initiated. Preliminary data of this clinical trial will be presented in parallel.

L18 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:569254 CAPLUS
DOCUMENT NUMBER: 131:331773
TITLE: Interferon/antioxidant combination therapy for chronic hepatitis C- a controlled pilot trial
AUTHOR(S): Look, M. P.; Gerard, A.; Rao, G. S.; Sudhop, T.; Fischer, H.-P.; Sauerbruch, T.; Spengler, U.
CORPORATE SOURCE: Department of General Internal Medicine, University of Bonn, Bonn, Germany
SOURCE: Antiviral Research (1999), 43(2), 113-122
CODEN: ARSRDR; ISSN: 0166-3542
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of two forms of antioxidative co-therapy were analyzed in 24 interferon-alpha (IFN)-naive patients with chronic hepatitis C who were randomized to either receive IFN monotherapy (3+4.5 million units IFN-α 2a per wk), (group A), or IFN and N-acetylcysteine (NAC) 1.800 mg/day plus sodium selenite (400 μg/day) supplementation (group B), or treatment as in group B plus vitamin E (544 IU/day) (group C), over 24 wk. Changes in histol., normalization of ALT, reduction of viral RNA, serum levels of glutathione, selenium, vitamin E, erythrocyte glutathione peroxidase, trolox equivalent antioxidative capacity (TEAC), thiobarbituric acid reactive substances (TBARS) and protein carbonyl groups were measured. Low baseline TEAC and elevated TBARS indicated increased oxidative stress before therapy, which was not affected by antioxidant supplementation. At the end of treatment complete responses were found in 3/8, 2/8 and 6/8 patients in groups A, B and C, resp., but liver histol. had not significantly improved. Vitamin E treated patients had a 2.4 greater chance (95% CI: 1.05-5. 5) of obtaining a complete response and had significantly greater reduction in viral load (P=0.028) than patients without vitamin E. Relapses, i.e. re-appearance of detectable hepatitis C virus (HCV) RNA and/or re-elevation of ALT-activity occurred in 7 out of the 11 responders within 6 mo after termination of therapy (group A: 2/3, group B: 1/2 and group C: 4/6). Thus, no overall beneficial effect of antioxidant/IFN therapy was detected. However, the apparent trend towards a more favorable outcome with vitamin E supplementation warrants to further study this substance as an adjuvant to IFN therapy in chronic hepatitis C.

L14 ANSWER 12 OF 12 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:251696 BIOSIS
DOCUMENT NUMBER: PREV199799550899
TITLE: Serum selenium, plasma glutathione (GSH) and erythrocyte glutathione peroxidase (GSH-Px)-levels in asymptomatic versus symptomatic human immunodeficiency virus-1 (HIV-1)-infection.
AUTHOR(S): Look, M. P. [Reprint author]; Rockstroh, J. K.; Rao, G. S.; Kreuzer, K.-A.; Barton, S.; Lemoch, H.; Sudhop, T.; Hoch, J.; Stockinger, K.; Spengler, U.; Sauebruch, T.
CORPORATE SOURCE: Dep. General Internal Med., Univ. Bonn, Sigmund Freud-Strasse 25, 53105 Bonn, Germany
SOURCE: European Journal of Clinical Nutrition, (1997) Vol. 51, No. 4, pp. 266-272.
CODEN: EJCNEQ. ISSN: 0954-3007.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Jun 1997
Last Updated on STN: 9 Jul 1997

AB Objectives: Antioxidant defense status was investigated in HIV-infected patients by measuring serum selenium, erythrocyte glutathione peroxidase (GSH-Px) activity, plasma thiol (-SH) and glutathione (GSH) concentrations along with the assessment of the clinical stage and surrogate markers of HIV-disease. Design, setting and subjects: Serum selenium levels were determined cross-sectionally in 104 sequentially selected HIV-infected patients (83 outpatients and 21 patients with ongoing AIDS defining events). The patients were classified into three stages of the disease, I, II and III according to the 1993 Centers For Disease Control (CDC) classification system for HIV-infection. GSH-Px activities, plasma SH and plasma GSH concentrations were determined in a subset of 24 patients at stage I and 12 patients at stage III with an active AIDS-defining disease. Results: Mean serum selenium levels were lower in CDC stage Il (68.7 +- 20.9 mu-g/l; P lt 0.01; n = 34) and stage III (51.4 +- 14.7 mu-g/l; P lt 0.01; n = 37) HIV-infected patients than in healthy subjects (89.2 +- 20.9 mu-g/l; n = 72) and stage I patients (82.3 +- 20.5; mu-g/l; n = 33). Serum selenium levels were positively correlated with CD4- count (r = 0.42; P lt 0.001; n = 104) and inversely with levels of soluble tumor necrosis factor receptors type II (r= -0.58; P lt 0.01; n=35), neopterin (r= -0.5; P lt 0.001; n = 80) and beta-2-microglobulin (r= -0.4; P lt 0.001; n=94). Hepatitis C virus (HCV) and HIV-coinfected patients at CDC stages I and II showed markedly lower selenium concentrations compared to HIV-infected patients without concomitant HCV-infection. Serum selenium and GSH-Px activity in hospitalized AIDS patients was significantly lower as compared to asymptomatic patients and healthy subjects, whereas plasma SH and GSH concentrations were lower in both, asymptomatic -and AIDS-patients, than in the controls. Conclusion: The results show that stages I-III of HIV-disease are characterized by significant impairments of antioxidative defenses provided by selenium, GSH-Px, SH-groups and GSH.